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ABSTRACT

This study examined College Board Admitted Student Questionnaire (ASQ) data from 1988 through 1992 to determine whether any trends could be identified, specifically with regard to the degree of importance ascribed to the 20 college characteristics listed on the questionnaire and to patterns in financial aid applications and awards. Analysis of 5 years of ASQ data confirms the importance of academic quality in students' college choice. In particular, students are concerned about faculty quality and access. The cost of attending is showing an ongoing continued rise in importance to students with over 60 percent of the 1992 ASQ respondents indicating that this factor was very important in their college choice. Data also indicated that the number of need-based financial aid applications and awards, as well as merit-based awards, increased significantly at both the ASQ participating colleges and other colleges, thus confirming the importance of cost as a factor in college choice. Contains 17 references. (GLR)

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FIVE-YEAR TRENDS IN DATA FROM THE ADMITTED STUDENT QUESTIONNAIRE

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Jean Endo
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FIVE-YEAR TRENDS IN DATA FROM THE ADMITTED STUDENT QUESTIONNAIRE

Data from the College Board's Admitted Student Questionnaire (ASQ) were analyzed for the years 1988 through 1992. A gross analysis of all available data and an analysis of aggregated data for colleges participating in at least four of the five years produced similar results. Perceived academic quality -- especially pertaining to faculty -- remains the most important factor in students' college choices. The importance of cost increased significantly over the five-year period; 60% of the 1992 respondents indicated that Cost of attendance was very important. The incidence of need-based financial aid applications and awards, as well as merit-based awards, increased significantly at both the ASQ participating colleges and other colleges applied to.

FIVE-YEAR TRENDS IN DATA FROM THE ADMITTED STUDENT QUESTIONNAIRE

The Admitted Student Questionnaire (ASQ) program was developed by the College Board in recognition of the fact that while market research is desirable for most colleges, not all of them have the expertise, time, or resources to conduct market research studies (College Board, 1992b). After two years of pilot studies, the ASQ program was formally begun in 1988. It offers colleges the use of a proven questionnaire, and provides comprehensive reports describing both their own data and norms for all participating colleges.

The ASQ collects information on the importance of 20 college characteristics to students in choosing which college they will attend; how the participating college (the one that mailed them the survey) compares on those factors to other colleges considered by the student; the degree of exposure to and comparative ratings of various sources of information about the college; widely held images of the college; other colleges applied to and application status there; financial aid applications and awards; and students' background characteristics. There is insufficient space here to discuss trends in all of these areas, so this paper will focus on changes in importance ratings and in cost and financial aid issues.

Introduction

Market research for colleges is a hot topic. As the number of 18-year-olds has continued to decline, colleges are scrambling to identify and target students so that they can maintain their enrollments in the style to which they've become accustomed. The College Board's Enrollment Planning Service, based on work begun by the University of Pennsylvania (Zemsky and Oedel, 1983), divides the country into 304 markets and describes each market in terms of PSAT and SAT test-takers,

feeder high schools, student characteristics, and colleges competing with one's own college for the market's students (College Board, 1990b). Litten, Sullivan, and Brodigan (1983) described a comprehensive approach to understanding not only the composition of various student markets, but also the reasons students prefer one college to another and choose (i.e. enroll in) one college over another.

It seems obvious that any study of students' reasons for enrolling in a particular college should take into account what attributes and characteristics of colleges are very important to them.[1] Some attributes are particularly important at the time the student begins the search process. For example, students may immediately eliminate colleges whose costs are perceived to be completely beyond their means, or whose students have perceived ability levels either much higher or much lower than the applicants' own (e.g., Fuller, Manski, and Wise, 1982). Other college characteristics gain importance as the actual decision approaches. Amount of financial aid, distance from home, type, quality, or amount of post-admission contact with the college -- any of these might tip the scale.

When students are asked to rate the importance of various decision factors, issues of academic quality predominate, although in a meta-study of the 1988 ASQ data Chapman (forthcoming) found that "Many things -- indeed almost everything mentioned -- are, on average, at least 'Somewhat Important.'" Yearly data from the Cooperative Institutional Research Program (CIRP) have consistently shown "College has a good academic reputation" to be the most important reason for selecting a college (Dey, Astin, and Korn, 1991). Academic quality seems to rise to the top regardless of the principal focus of the research. For example, Maguire and Lay (1981) identified Academics/Religion and Reputation as the top two components of Boston College's image, and Murphy (1981) found academic reputation to be most important in a study of the roles of parents and students in the choice process. Terkla and Wright (1986) found that location appeared

most often as one of the top three factors, but prestige was most frequently listed as the most important factor.

The fact that students consider most factors to be important in their decision may result in interpretations of self-reported importance weights that are essentially meaningless. True importance weights can be derived statistically, however, from the relationship between the ratings of the colleges on the factors and the students' actual enrollment behavior. Chapman (1992) applied a multinomial logit model to the 1988 ASQ data and identified the following characteristics (from the ASQ) as the top five drivers of college choice: "Quality of Majors of Interest to You," "Cost of Attendance," "Overall Academic Reputation," "Access to Faculty,", and "Quality of Social Life."

While academic quality seems to be paramount in the student choice process, the role of college costs should not be underestimated. The two principal components of net college cost are the tuition/fees/room and board that the college charges and the financial aid (need-based and so-called merit) that the student uses to offset those charges. In an analysis of data from the National Longitudinal Study of the Class of 1972 Manski and Wise (1983) found that the negative effect on probability of enrollment due to increases in tuition or room and board was offset by increases in financial aid. Leslie and Brinkman's (1987) meta-analysis of 25 student demand studies confirmed this, noting, however, that the early studies "seemed clearly to show that students are more sensitive to tuition than to equivalent per student aid changes."

In current dollars the cost of college attendance (exclusive of financial aid) has risen dramatically for all except public two-year colleges (Table 1); even in constant 1991 dollars the cost of a private university is 47% higher than in 1982. Except for public two-year colleges, the cost of attending college has outstripped the increase in disposable per capita income during the same period.

TABLE 1: Changes in the Cost of Attending College (Current Dollars)

	Cost 1991-92 (current $)	Increase 1982-1991	Increase 1987-1991
Private University	$17,631	107%	35%
Private Four-Year	13,061	97%	33%
Public University	6,043	78%	31%
Public Four-Year	5,400	78%	27%
Public Two-Year	3,728	56%	22%
Disposable Per Capita Income	16,318	68%	25%

Source: College Board (1992a). Trends in Student Aid: 1982 to 1992

In terms of aid, Leslie and Brinkman (1987) conclude that "most research indicates some superiority of grants over other forms of student aid in encouraging enrollments." In a study of high ability students Chapman and Jackson (1987) found that "Other things being equal, total college costs detract from a college's attractiveness, while scholarship aid adds to its desirability. Other non-grant components of financial aid... appear to have no influence on college choice behavior." No-need aid, based on academic, athletic, or artistic talent, has been a source of controversy for years: does such aid represent a reward or a bribe? The benefits of attracting students who would not have enrolled without such grants must be compared to the costs of providing grants to students who would have enrolled anyway, without the awards. Most recently the question has arisen whether merit scholarships targeted at underrepresented minority students do more to increase access or discrimination.

Nationally, total aid awarded increased 88% from 1982-83 to 1991-92, lagging behind increases in the cost of attending a private institution (Table 2)[2]. Most of the increase is attributable to the 206% increase in institutional awards, defined as "awards from the institution's own funds, scholarships, fellowships, and trainee stipends from government and private programs that allow the institution to select the recipient" (College Board, 1992a).

TABLE 2: Changes in Aid Awarded to Postsecondary Students (Current Dollars)

	Aid 1991-92 (current $)	Change 1982-1991	Change 1987-1991
Total Aid Awarded (millions)	$30,771	88%	29%
Federal, Generally Available	21,055	96%	23%
Institutional and Other Grants	5,991	206%	57%
State Grant Programs	1,931	92%	28%
Federal, Specially Directed	1,794	-32%	19%

Source: College Board (1992a). Trends in Student Aid: 1982 to 1992

Thus it is not surprising that cost and financial aid have risen in their importance in the college selection process. In the CIRP studies the percentage of students indicating that "College has low tuition" is a very important reason for selecting their freshman college has risen from a low of 16.8% in 1978, to 21.4% in 1988, to 30.0% in 1992 (Dey et al., 1991; Dey, Astin, Korn, and Riggs, 1992). "College offered financial assistance" was marked very important by a low of 13.6% of the 1976 respondents, rising to 21.4% in 1988 and 28.3% in 1992.

Methodology

The purpose of this study was to examine ASQ data from 1988 through 1992 to determine whether any trends could be identified, specifically with regard to the degree of importance ascribed to the 20 college characteristics listed on the questionnaire and to patterns in financial aid applications and awards. The data are examined at two levels. First, all responses are used to compare the values of the variables over the five-year period. The second part of the study examines only those colleges that participated in at least four of the five years.

The data for this study consisted of the responses to the Admitted Student Questionnaire for 1988, 1989, 1990, 1991, and 1992.[3] Table 3 shows, for each year, the number of colleges participating and the total number of responses.

TABLE 3: ASQ Participating Colleges and Responses, 1988-92

	Colleges	Responses[4]
1988	83	55,909
1989	129	89,678
1990	135	90,948
1991	126	80,061
1992	72	52,805

The Statistical Package for the Social Sciences (SPSS/PC+) was used to calculate means and frequencies for the variables of interest. Because the large N's involved could easily result in differences that were statistically significant but numerically small, tests of significance were not conducted for this part of the study. Instead, the discussion focuses on variables for which the mean 1992 frequency of a given response was at least 3% higher or lower than the 1988 value (chosen arbitrarily).

Despite the large number of colleges participating, there were some important year-to-year differences among the five college cohorts. In particular, the five sets of colleges differed in their distribution by geographic region and by control. Table 4 describes the sets of colleges according to some of the demographic characteristics of the institutions.

TABLE 4: Year-to-Year Differences Between ASQ Participant Colleges

	1988	1989	1990	1991	1992
N of colleges	83	129	135	126	72
Public	18%	12%	7%	5%	12%
University	38%	32%	27%	28%	29%
Midwest	17%	14%	12%	12%	9%
Middle States	21%	28%	25%	28%	25%
New England	25%	21%	22%	22%	15%
West	11%	12%	10%	10%	18%
South	19%	17%	22%	22%	27%
Southwest	7%	8%	8%	6%	7%

The second part of the study was intended to remove any uncertainties due to differences in the composition of the five cohorts by analyzing only the set of institutions that participated in each of the five years. The introduction of the ASQ Plus in 1992 made this difficult, however, as many of the colleges that had used the ASQ regularly decided to try the other version. Eight colleges and universities remained that participated for all five years, and four more that had participated in 1988, 1992, and two of the three intervening years. Thirteen institutions participated from 1988 to 1991 (with one college skipping 1990); 11 more participated from 1989 to 1992 (two colleges skipped one year).

SPSS/PC+ was used to aggregate weighted cases by college for each year, thus making college the unit of analysis, rather than individual students. Aggregation permits values on a given variable for one year to be paired with values for the same variable for a different year. The aggregated variables included the following (among others): percent marking each of 20 college characteristics very important; mean number of colleges applied to and admitted to; percent applying for and awarded need-based financial aid and the percent offered merit-based aid at the participating college and/or at some other institution.

Results

All 1988-92 respondents

Table 5 displays the characteristics showing at least a 3% difference between 1988 and 1992.[5] The percentages shown represent the respondents indicating that the characteristics were "very important" in their college choice.

TABLE 5: Percent Marking Characteristics "Very Important", 1988-92

	1988	1989	1990	1991	1992
Academic facilities	59.2%	60.7%	60.8%	61.3	63.1%
Undergraduate emphasis	60.9%	60.2%	61.4%	63.0	64.0%
Cost of attendance	51.7%	55.0%	56.9%	59.4	64.3%
Quality of social life	57.0%	54.6%	53.7%	53.9	53.5%

Quality of social life was less important to the 1992 respondents than to the 1988 group, but the other three characteristics gained in importance. Cost of attendance was very important to almost 13% more respondents in 1992 than in 1988. When the mean importance is calculated for each characteristic (1 = Very Important, 2 = Somewhat Important, 3 = Not Important), the same six characteristics appear in the same order every year as the most important: Quality of majors of interest to you, Quality of faculty, Overall academic reputation, Access to faculty, Variety of courses, and Quality of academic facilities. Cost of attendance was the twelfth most important factor in 1988 (mean importance rating of 1.67), moving up to eighth place for the 1992 cohort (1.47).

All of the financial aid questions showed large changes over the five-year period. Table 6 displays the percentage of students indicating that they had applied for or were offered aid at the participating college ("our college") or any other college, and the percent indicating that either financial aid or college costs was a significant factor in their college choice.

TABLE 6: Changes in Financial Aid Applications and Awards, 1988-92

	1988	1989	1990	1991	1992
Applied-our college	53.6%	58.6%	59.3%	63.1%	64.0%
Applied-any other	49.6%	54.1%	56.9%	60.2%	62.4%
Awarded-our college	40.5%	45.0%	43.8%	48.4%	48.5%
Awarded-any other	41.6%	46.6%	48.3%	51.8%	54.1%
Merit-our college	17.0%	18.9%	20.5%	24.7%	23.5%
Merit-any other	29.4%	32.4%	35.7%	40.0%	40.7%
Cost/aid significant	48.1%	52.0%	53.9%	57.3%	62.5%

Respondents in all five cohorts were more likely to have applied for need-based financial aid from "our college," but were more likely to have been offered aid, need-based or merit, by some other college. Of course, the larger the num-

ber of colleges to which the respondents applied for aid, the greater the chances that at least one college would offer aid. Nevertheless, the difference between the percentages awarded merit aid by "our college" and by any other college is particularly striking.

In fact, the number of college options available to students did rise over the period: both the mean number of colleges applied to and the mean number admitted to rose between 1988 and 1992. Concomitantly, the colleges' admissions yield (matriculating students as a proportion of all admitted students) declined, as colleges had to work harder (admit more students) to enroll the same number of freshmen (Table 7).

TABLE 7: Mean Applications, Admissions, and Yield, 1988-92

	1988	1989	1990	1991	1992
Colleges applied to	5.0	5.2	5.3	5.4	5.5
Colleges admitted to	3.7	4.0	4.2	4.4	4.5
Matriculants surveyed[6]	575	576	528	496	560
Non-matriculants surveyed	785	850	897	898	1021
Admissions yield	42.3%	40.4%	37.1%	35.6%	35.4%

The final observation of note is that the demographic character of the admitted students changed somewhat over the period. Compared to 1988, the 1992 participating colleges enrolled more out-of-state students, more minority students, fewer low- and middle-income students, and more students with family incomes of at least $60,000 (Table 8).

Table 8: Selected Demographic Descriptors, 1988-92

	1988	1989	1990	1991	1992
Percent minority	14.5%	15.8%	17.3%	18.8%	18.1%
Percent state resident	50.1%	46.2%	47.4%	44.1%	47.3%
Percent income <$30,000	19.4%	18.6%	16.5%	16.7%	16.9%
Percent $30,000-$59,999	38.1%	37.2%	35.2%	32.9%	35.8%
Percent $60,000+	42.5%	44.2%	48.3%	50.4%	47.2%

Data Aggregated by College

The purpose of the second part of the study was to minimize as much as possible any effects due to the different composition of the colleges participating each year. Since there were only 12 colleges in the 1989-92 group, a one-way analysis of variance was conducted on the four-year results of all three groups described above. If the group differences were insignificant the remainder of the study would use all 36 colleges and focus on the mean differences between the values of the fourth year (whether it be 1991 or 1992) and the values of the first year (1988 or 1989).

As it transpired, the groups were very similar in the difference between the fourth- and first-year percents "very important." The actual values of those percentages were quite dissimilar, however, making it impossible to combine the groups.[7] Table 9 displays a few examples.

Because of such differences there was no justification for combining the four-year results of groups 2 and 3. Similarly, while group 1's results resembled those of group 2 more than those of group 3, there was no justification either for combining group 1's 1988-91 results with those of group 2, or for combining group 1's 1989-92 results with group 3. Therefore the remainder of this report will discuss group 1's five-year results only. It is important to note, however, that the same patterns of increase or decrease occurred in all three groups. Specifically, for all three groups the cost of attendance was

TABLE 9: Comparison of Selected Results for Three Cohort Groups

	1988	1989	1990	1991	1992	1991-1988	1992-1989
Percent cost very important							
Group 1 (1988-92)	50.9%	51.7%	55.7%	55.9%	62.8%	5.0%	11.1%
Group 2 (1988-91)	50.7%	51.5%	54.2%	57.5%		6.8%	
Group 3 (1989-92)		54.4%	57.4%	60.2%	63.9%		9.5%
Offered merit aid-any other college							
Group 1	28.0%	29.6%	30.7%	35.9%	38.9%	7.9%	9.3%
Group 2	27.9%	29.8%	31.2%	35.5%		7.6%	
Group 3		34.3%	36.3%	40.6%	43.5%		9.2%
Admissions yield							
Group 1	41.2%	44.7%	36.3%	38.1%	35.6%	-3.1%	-9.1%
Group 2	41.6%	41.1%	36.1%	37.2%		-4.4%	
Group 3		46.4%	38.4%	40.4%	37.9%		-8.5%

rated very important significantly more often ($p < .01$ using paired t-tests) in the most recent ASQ study than in the earliest ASQ study. In addition, financial aid applications and awards were made significantly more often ($p < .01$) in the most recent ASQ study than in the earliest study.

For the 1988-92 participants (N=12) six of the 20 college characteristics listed on the ASQ were rated very important significantly more often ($p < .05$) in 1992: Quality of faculty (84.9% vs. 81.3%), Quality of academic facilities (62.5% vs. 57.0%), Access to faculty (71.8% vs. 69.3%), Emphasis on undergraduate education (64.9% vs. 60.8%), Cost of attendance (62.8% vs. 50.9%), and Ease of getting home (36.6% vs. 33.2%). Each of these six showed a significant four-year difference for at least one of the other two groups.

Two of the factors showing significant increases in importance concerned faculty. In the same vein, the percentage of admitted students who had some contact with faculty as a source of information about the participating college also increased, from 55.0% in 1988 to 63.4% in 1992. Did the students seek out faculty contact more as college faculty became more important to them? Or did

the colleges make faculty more available during the admissions process because their ASQ reports indicated that faculty quality and access to faculty were very important to students? Unfortunately, the ASQ itself cannot answer these questions.

For the 1988-92 group all the financial aid application and award questions showed significant increases (Table 10; $p < .01$), with the exception of the financial aid applicants at "our college" who were awarded aid there. Increases in financial aid applications to and awards from any other college were larger than those for "our college", once again reflecting, perhaps, the increase in the mean number of colleges admitted to (4.5 in 1992 compared to 3.9 in 1988 ($p < .01$); the number of colleges applied to only increased from 5.4 to 5.6, however).

TABLE 10: Financial Aid Applications and Awards, 1988-92 Participants

	1988	1989	1990	1991	1992
Applied-our college	58.0%	58.6%	58.8%	62.1%	66.3%
Applied-any other	53.8%	53.1%	57.6%	58.1%	63.1%
Awarded-our college	45.8%	47.3%	49.8%	51.6%	54.0%
Awarded-any other	44.3%	45.6%	50.7%	50.1%	56.1%
Awarded-ours (of applicants)	69.8%	72.8%	75.5%	75.5%	74.2%
Awarded-other (of applicants)	70.5%	73.8%	77.7%	76.7%	80.1%
Offered merit-our college	17.0%	17.8%	17.2%	29.0%	26.7%
Offered merit-any other	28.0%	29.6%	30.7%	35.9%	38.9%
Cost/aid significant	49.3%	48.6%	51.4%	54.6%	60.8%

Like the total group, these 12 colleges also experienced an increase in minority students, from 11.8% of all 1988 admitted students to 16.7% in 1992 ($p < .05$). The small difference in the income distribution between 1992 and 1988 disguises the 1988-91 increase in higher-income students, which then fell back 5% in 1992 (Table 11). There were no other significant demographic differences between the 1988 and 1992 cohorts in this group.

TABLE 11: Demographic Descriptors, 1988-92 Participants

	1988	1989	1990	1991	1992
Percent minority	11.8%	12.5%	13.3%	16.3%	16.7%
Percent income < $30,000	19.0%	17.3%	17.7%	18.7%	18.8%
Percent $30,000-$59,999	38.2%	35.1%	33.8%	32.0%	37.0%
Percent $60,000+	42.8%	47.6%	48.5%	49.3%	44.2%

Table 12 displays the year-to-year changes for matriculating and non-matriculating students separately. The five-year differences are all statistically significant for matriculants. As would be expected, matriculating students were more likely to have applied for and been awarded aid by "our college", although they were more likely to have been offered merit aid by some other college. Non-matriculants were more likely to have applied for aid from and to have been awarded need-based or merit aid by some other college, although the increase in financial aid applications was not significant. The difference in the percent offered merit awards by some other college and by "our college" was at least three times greater for non-matriculants.

Discussion

Analysis of five years of ASQ data confirms the importance of academic quality in the college choice process. In particular, students are concerned about faculty -- quality and access. The cost of attending a given college is also important, however, and its importance continues to rise. Over 60% of the 1992 ASQ respondents indicated that Cost of attendance was a very important factor in their college choice.

Further evidence of the importance of cost is the increase in the percentage of students applying for and awarded financial aid. While the increase in the incidence of merit awards was especially striking, it should be noted that

TABLE 12: Financial Aid Applications and Awards, 1988-92
Matriculants and Non-Matriculants

	1988	1989	1990	1991	1992
Matriculants					
Applied-our college	62.3%	62.3%	66.7%	70.0%	71.5% *
Applied-any other	45.0%	46.7%	51.1%	53.2%	55.9% *
Awarded-our college	52.3%	52.1%	59.0%	61.6%	62.4% *
Awarded-any other	38.0%	40.5%	45.9%	46.4%	50.6%**
Offered merit-our college	18.7%	19.4%	18.6%	30.4%	28.6% *
Offered merit-any other	21.5%	23.3%	23.8%	27.1%	30.1%**
Cost/aid significant	47.6%	46.8%	53.1%	57.0%	60.1%**
Non-matriculants					
Applied-our college	55.1%	56.0%	54.2%	57.0%	62.6%
Applied-any other	60.1%	58.2%	61.3%	61.6%	67.2%
Awarded-our college	41.3%	43.0%	44.7%	45.8%	49.3%
Awarded-any other	48.8%	49.5%	53.6%	53.0%	59.4% *
Offered merit-our college	16.1%	15.9%	16.3%	28.3%	25.5% *
Offered merit-any other	32.5%	34.4%	34.5%	41.4%	44.1%**
Cost/aid significant	50.8%	49.3%	50.3%	53.5%	61.4%**

Difference between 1992 and 1988: * $p < .05$ ** $< .01$

students may be able to increase their likelihood of being offered a merit award by making better (or at least different) application decisions. In other words, the increase in the number of colleges admitted to may be as much a function of a better applicant-college fit as it is of colleges scrounging for students. It was the author's experience as a 1988 ASQ participant that quite a number of students complained about not receiving a merit award from the participating college when they had received it from some other (named) college, said college almost always being less selective than the participating college and apparently having comparatively lower standards for merit eligibility.

There is much more information to be gleaned from an analysis of ASQ data. The sheer volume of data and the time and effort involved in aggregating it pre-

cluded a more extensive analysis for the purposes of this paper. However, given that the analyses of the total ASQ population and the data aggregated by college tended to support each other, future investigations could reasonably be confined to the total set, greatly simplifying the task.

One topic for further exploration would be an extensive analysis of yield for particular variables. For example, how did the yield change for students who were offered need-based aid by "our college," compared to those offered aid by some other college? This question will become even more important if the number of colleges admitted to continues to rise, because of the corresponding increasingly compounded probability of at least one other college also offering aid. Given the increasing importance of cost, what happened to the yield for colleges considered "best" or "better than most" on this question? One could also examine the five-year data on financial aid applications and awards for respondents classified by income, SAT/ACT scores, etc., or for different types of colleges.

The ASQ also contains rich data on application and admission to other colleges. The students' application sets could be analyzed in order to determine, for example, whether rising costs have increased the number of public colleges or universities applied to, or whether the incidence of merit awards is tied to the inclusion of particular types of colleges in the admission set. The size of the yearly cohorts would also make it feasible to match respondents on the basis of certain demographic variables, such as gender or standardized test scores.

In summary, the amount of data available from the ASQ is formidable. This paper has only dealt with a small portion of it, albeit the portion touching on a topic of continuing concern: the influence of college cost and financial aid on students' enrollment decisions. It will be interesting to see what new information can be gained from further analyses of the 1988-92 data, as well as from the inclusion of additional yearly cohorts.

Notes

1. Litten et al. (1983) distinguish between "attributes," generic or defining properties of an institution, and "characteristics," an institution's specific quality or value on a particular attribute.
2. It also appears that private institutions (and students at private institutions) received a much smaller share of federal aid in 1990 than in 1982. In the guaranteed loan programs, for example, the percentage of private students receiving Stafford aid dropped from 39% to 36%, the private PLUS percentage dropped from 66% to 34%, and the SLS program dropped from 80% to 36% (College Board, 1992a).
3. In 1990 the College Board developed an alternate version of the ASQ called the Admitted Student Questionnaire Plus (ASQ Plus). This study does not include the seven colleges that participated in the 1990 field test, the 12 that participated in the 1991 field test, nor the 82 that used the ASQ Plus in 1992.
4. Normal ASQ procedure (College Board, 1990b) is to weight enrolling and non-enrolling respondents separately, using the inverse of the response rate for each group, so that total ratings are not inflated due to overrepresentation of enrolling students. The balance of this analysis uses weighted N's.
5. Those wishing data on all 20 characteristics should contact the author.
6. Virtually all colleges participating in the ASQ do survey all admitted students. The remainder survey a random sample or a stratified random sample.
7. As Table 9 indicates, the 1989-92 group was more like the 1988-91 group than like the 1989-92 group. That is, for group 1 (1988-92), the 1988-91 results resembled those of group 2 (1988-91) more than group 1's 1989-92 results resembled those of group 3 (1989-92).

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